

**Table 5.1 Sample Analytical Results Summary - Background Soil  
Morning Star Mine  
Mojave National Preserve, California**

Location	Sample Date	Total CN mg/kg	WAD CN mg/kg	Sb mg/kg	As mg/kg	Ba mg/kg	Be mg/kg	Cd mg/kg	Cr mg/kg	Co mg/kg	Cu mg/kg	Pb mg/kg	Hg mg/kg	Mo mg/kg	Ni mg/kg	Se mg/kg	Ag mg/kg	Tl mg/kg	V mg/kg	Zn mg/kg	pH s.u.
BGS-1 Northwest	Jul-02	nd	nd	nd	nd	95	nd	nd	8	nd	11	18	nd	nd	5	nd	nd	nd	18	37	7.3
BGS-2 Northeast	Jul-02	nd	nd	nd	nd	111	nd	nd	5	nd	9	30	nd	nd	nd	nd	nd	nd	10	33	7.2
BGS-3 Southwest	Jul-02	nd	nd	nd	nd	95	nd	nd	9	nd	15	38	nd	nd	7	nd	nd	nd	19	35	7.4
BGS-4 South	Jul-02	nd	nd	nd	nd	58	nd	nd	6	nd	7	13	nd	nd	nd	nd	nd	nd	12	24	7.8
BGS-5 Southeast	Jul-02	nd	nd	nd	nd	80	nd	nd	8	nd	14	22	nd	nd	6	nd	nd	nd	16	30	7.9
BGS-6 East	Jul-02	nd	nd	nd	nd	89	nd	nd	6	nd	15	33	nd	nd	5	nd	nd	nd	17	44	8.1
<b>Established Regulatory Limits</b>																					
COPC? <sup>a</sup>		Yes	Yes	No <sup>c</sup>	Yes <sup>c</sup>	No	No	Yes	No	No	Yes	Yes	No	Yes	No	No <sup>d</sup>	Yes	Yes	No	No	
Background Concentrations <sup>a</sup>		na	na	0.16 - 0.33	1 - 3.8	571 - 710	0.68 - 1.91	0.05 - 0.32	23 - 67	8 - 11.6	11.3 - 15.1	13.2 - 26.7	0.1 - 0.32	0.1 - 1	12 - 30	0.015 - 0.02	0.12 - 0.28	0.38 - 0.77	74 - 85	92 - 154	na
USEPA Region 9 Soil PRGs <sup>e</sup>																					
Industrial		35	35	820	2.7	100,000	2,200	810	64 <sup>f</sup>	100,000	76,000	750	610	10,000	41,000	10,000	10,000	130	14,000	100,000	na
Residential		11	11	31	0.39	5,400	150	9	30 <sup>f</sup>	4,700	2,900	400	23	390	150	390	390	5.2	550	23,000	na
LRWQCB WDRs <sup>g</sup>		2.5 <sup>h</sup>	0.5 <sup>i</sup>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	na
CA TTLC <sup>j</sup>		--	--	500	500	10,000	75	100	2,500	8,000	2,500	1,000	2.0	3,500	100	100	500	700	2,400	5,000	na
Detection Limits		0.2	0.2	5	5	5	5	1	5	5	5	5	1	5	5	5	5	5	5	5	0.1

Total CN / WAD CN Total Cyanide / Weak Acid Dissociable Cyanide  
mg/kg milligrams per kilogram (equivalent to parts per million)  
nd Not detected. Detection limit indicated in last row of table.  
-- not established

<sup>a</sup> Chemical Of Potential Concern if above background.  
<sup>b</sup> Detection limits were above the background range and regulatory limits. Analyte kept as COPCs.  
<sup>c</sup> Detection limits were above the background range, but below regulatory levels.  
<sup>d</sup> From: Bradford et al., 1996. Only data from San Bernadino County used.  
<sup>e</sup> From: USEPA, 2000a.  
<sup>f</sup> PRG for chromium VI presented. The California modified standard for Chromium VI is 0.16.  
<sup>g</sup> Lahontan Regional Water Quality Control Board waste discharge requirements for Morning Star Mine  
<sup>h</sup> Soluble Total Cyanide.  
<sup>i</sup> Soluble WAD Cyanide. The WDR for Total cyanide after extraction of soluble WAD and total cyanide is 10.  
<sup>j</sup> California Total Threshold Limit Concentration

As Arsenic  
Sb Antimony  
Ba Barium  
Be Beryllium  
Cd Cadmium  
Cr Chromium  
Co Cobalt  
Cu Copper  
Pb Lead  
Hg Mercury  
Mo Molybdenum  
Ni Nickel  
Se Selenium  
Ag Silver  
Tl Thallium  
V Vanadium  
Zn Zinc